

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, FEBRUARY, 1927

By J. B. KINGER

General summary.—The weather during the first part of the month was characterized by uniformly mild conditions for the season in nearly all sections of the country. About the beginning of the second week, however, an extensive high-pressure area, accompanied by much colder weather, overspread the Northwestern States and drifted southward over the southern Great Plains and the Southeast. The cold moderated considerably before reaching the latter section, although there was a sharp fall in temperature over the Southwest with freezing extending well southward over Texas. Storms were rather active during the third week with low pressure areas causing widespread rain over southern districts and rain or snow over most Central and Northern States east of the Mississippi River. During the last week there was a return to generally pleasant weather in nearly all portions of the country and temperatures were well above normal in most areas.

The mild, open, and mostly fair weather during the first part made conditions favorable for outside work and greatly reduced the snow cover that was present at the beginning of the month. The moderate to substantial rains in the Southeast were very beneficial in conditioning the soil, and abnormal development of all vegetation was noted. The continued warm weather had advanced fruit too rapidly, with the earlier varieties blooming quite generally throughout the Gulf section during the second week. Fruit trees continued to advance prematurely during the latter part of the month and at the close some early varieties were in bloom as far north as central Arkansas. While there was some interruption to farm work in the Southeast by rain, the additional moisture was beneficial; in some southwestern areas the soil continued too wet to work. Toward the close of the month conditions became more favorable for work in the Southwest, with seasonal operations advancing satisfactorily.

Small grains.—There was practically no snow cover in the principal wheat-producing sections at the beginning

of the month, but beneficial precipitation occurred during the second week, the generous snowfall over the northwestern portion being especially helpful. Some complaint of freezing and thawing was made in northern areas, but this was not widespread, and the wheat crop continued in generally fair to good condition in most sections. During the last half of the month wheat was reported greening up in the lower Missouri Valley and furnishing some pasturage in Kansas. Cereal crops in Southern States continued in mostly good condition with the moisture in the Southeast of considerable benefit. There was some complaint of green bugs appearing locally in the Southwest.

Ranges, pastures, and livestock.—Pastures showed improvement in the Southeast under improved moisture conditions and favorable temperatures. The absence of storms during the first week was beneficial for livestock in the great western grazing areas, while the open conditions in the northern Great Plains permitted free ranging. The weather was less favorable during the second week, but rain or snow in the far Southwest augmented water supplies and improved the desert range. Generous precipitation over southwestern sections during the latter part was beneficial for the range and further increased the water supply. Livestock continued in mostly satisfactory condition, with lambing making good advance in the West at the close.

Miscellaneous crops.—Progress and condition of truck crops in winter-producing areas was almost continuously good throughout the month. Potato planting advanced rapidly in most areas of the Southeast, with planting beginning in southern Arkansas at the close.

The unseasonably mild weather during February caused premature swelling of fruit buds and at its close peaches, pears, and plums were in bloom as far north as central Arkansas and peach buds were showing color in the southern Ohio Valley. Citrus were making new growth in Florida and leafing and much bloom was noted in some districts. Good conditions for citrus prevailed in California the first part, but later the continued damp weather caused some rotting of navels on the trees.

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

Taking the ocean as a whole, the weather over the North Atlantic during February presented few unusual features, although in the region between the 45th and 50th parallels and the 30th and 45th meridians gales were reported on from eight to nine days, which is considerably above the normal as shown on the Pilot Chart. In a number of squares in the middle and eastern sections of the ocean gales occurred on from five to seven days, and several ships encountered winds of force 11 and 12, as shown in table.

The number of days with fog was considerably below normal over the Grand Banks and in the middle section of the steamer lanes; it was unusually prevalent, however, in the square between the 35th and 40th parallels and the 70th and 75th meridians, where it was observed on 13 days. Fog also occurred on four to six days over the eastern section of the steamer lanes and in the North Sea, and on three days in the Gulf of Mexico.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (75th meridian), North Atlantic Ocean, February, 1927

Stations	Average pressure	Departure ¹	High-est	Date	Lowest	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Julianehaab, Greenland	29.33	(?)	29.78	17th	28.91	1st. ⁴
Belle Isle, Newfoundland	29.82	+0.07	30.58	20th	29.16	3d.
Halifax	30.01	+0.03	30.74	20th	29.28	4th.
Nantucket	29.99	-0.07	30.36	1st	29.46	26th.
Hatteras	30.06	-0.07	30.52	1st	29.72	19th. ⁴
Key West	30.10	+0.02	30.24	2d. ⁴	29.72	19th.
New Orleans	30.08	-0.02	30.28	1st. ⁴	29.70	18th.
Swan Island	29.96	-0.03	30.02	16th	29.82	19th.
Turks Island	30.15	+0.07	30.24	13th	30.06	19th.
Bermuda	30.19	-0.05	30.36	2d.	29.98	26th. ⁴
Horta, Azores	30.10	-0.03	30.36	1st. ⁴	29.72	24th.
Lerwick, Shetland Islands	29.88	+0.16	30.55	9th	29.08	23d.
Valencia, Ireland	29.92	+0.02	30.59	6th	28.74	22d.
London	30.07	-0.07	30.58	14th. ⁴	29.20	24th.

¹ From normals shown on H. O. Pilot Chart based on observations at Greenwich mean noon, or 7 a. m., 75th meridian.

² Mean of 21 observations; seven days missing.

³ No normal established.

⁴ And on other dates.

⁵ Mean of 24 observations; four days missing.

The month began with a disturbance over Newfoundland that moved rapidly eastward and on the 3d was apparently in the vicinity of the south coast of Iceland.

Charts VIII to XI cover the period from the 3d to 6th, inclusive, when extremely stormy conditions prevailed over a large portion of the ocean.

On the 8th a well-developed Low was central near 50° N., 42° W., and gales of force 8 to 12 prevailed between the 40th and 50th parallels and the 30th and 45th meridians. This Low moved rapidly northeastward, decreasing in intensity, and on the 9th and 10th moderate weather was the rule over nearly the entire ocean, although on the 9th the station at Horta reported a southerly wind, force 8, with rain.

From the 11th to 13th, inclusive, a depression accompanied by moderate to strong gales was over the region between the Azores and 50th parallel and the 20th and 45th meridians.

On the 14th and 15th reports of winds of force 7 to 9 were received from vessels in various parts of the ocean, while over large areas moderate weather prevailed.

From the 16th to 18th a slow-moving disturbance covered the middle section of the steamer lanes, the storm area extending from the 35th to 50th parallels and the 30th to 60th meridians. On the 18th there was also a well-defined Low over the western part of the Gulf of Mexico which moved rapidly northeastward along the coast, and on the 19th was central near Savannah. On both dates westerly to northwesterly winds of force 7 to 9 occurred in the Gulf, which is unusual, as cyclonic winds of gale force are rare in this region during the winter.

On the 20th an area of high pressure was over the province of Quebec, with its crest near Father Point, where a barometric reading of 30.94 inches was recorded. On the same day a Low was centered over Chesapeake

Bay, and the stations at Nantucket and Atlantic City both reported northeast wind, force 10, accompanied by snow.

On the 21st and 22d the eastern section of the steamer lanes was covered by a deep depression, and northwesterly gales of force 8 to 11 were encountered east of the 40th meridian.

From the 23d to 25th there was considerable cyclonic activity over the middle section of the ocean, and on the 23d and 24th northerly to northeasterly gales were encountered between the 20th meridian and coast of Scotland.

From the 26th to 28th there ensued another period of heavy weather in the eastern section, the storm area on the 26th and 27th extending as far west as the 40th meridian, while on the 28th it was restricted to the region between the 45th and 50th parallels and the 0 and 20th meridians, west longitude. On the 26th Nantucket was near the center of a Low that moved rapidly eastward, and on the 27th was near 43° N., 52° W. On both dates southerly gales were encountered in the easterly quadrants.

NOTE.—Capt. David Pearson of the American Steamship *Sudawsonco*, has furnished the following note regarding meteorological phenomena observed by him on February 15, 1927, in latitude 45° 25' N. and longitude 35° 30' W.:

I observed three whirlwinds within a radius of 10 miles; two were close together, while the third was northwest about 4 miles. The two that were close together were within 1½ miles of the ship. They were revolving from left to right and working their way from the southward to windward almost in the face of a northwest gale of force 9. The progressive speed of the whirlwinds I should judge was about 8 miles per hour and the vortices anything up to hurricane force, at times almost forming a waterspout. Our barometer read at the time 29.60 inches.

OCEAN GALES AND STORMS FEBRUARY, 1927

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
			° ' "	° ' "				Inches					
Maine, Dan. S. S.	Baltimore	Bremen	38 12 N.	62 46 W.	Feb. 2.	2 p., 2.	Feb. 3.	29.80	SW	W. —	NW	WNW, 10	SW.-NW.
München, Ger. S. S.	New York	Queens town	48 43 N.	31 12 W.	3	Mdt. 3	5	29.43	SSW	SSW, 11	W	SW, 12	SSW.-S.-SW.
Nevada, Dan. S. S.	do.	Copenhagen	58 48 N.	14 13 W.	3	6 a., 3.	3	29.02	WSW	WSW, 10	WNW	—, 10	WSW.-WNW.
Pres. Harding, Am. S. S.	Queens town	New York	46 36 N.	46 32 W.	1	8 a., 3.	6	28.72	SW	SW, 11	NW	W, 12	SW.-NW.
Mjødrecht, Du. S. S.	Seville	do.	37 20 N.	67 25 W.	2	1 a., 4.	4	29.62	SSW	SSW, 10	N	NW, 12	SSW.-NW.
Houstonic, Br. S. S.	Bay town, Tex.	London	34 43 N.	55 27 W.	4	6 p., 4.	6	29.60	SW	WSW, 8	NW	WSW, 9	SW.-WSW.
Oxonian, Br. S. S.	Glasgow	Louisburg, N. S.	51 00 N.	37 00 W.	4	2 a., 4.	4	28.83	SSE	SW, 12	SW	SW, 12	SE.-SW.
Do.	do.	do.	50 30 N.	40 00 W.	5	9 a., 5.	6	28.56	S	SE, 10	NW	SW, 12	SE.-SW.
West Celina, Am. S. S.	Norfolk	Bremen	41 35 N.	32 50 W.	6	Noon, 6.	6	30.00	S	S, 10	NW	S, 10	S.-NW.
Missouri, Br. S. S.	Plymouth	New York	46 50 N.	37 00 W.	7	6 p., 7.	8	29.92	S	S, 10	W	S, 10	S.-SW.
Houstonic, Br. S. S.	Baytown	London	41 17 N.	41 12 W.	7	11 a., 8.	8	29.65	S	S, 10	WNW	S, 10	S.-WNW.
Illinois, Am. S. S.	Port Arthur	Stockholm	41 54 N.	44 56 W.	7	4 a., 8.	8	29.40	SW	NW, 10	NW	NW, 11	SW.-N.-W.
Tomalva, Am. S. S.	Antwerp	New York	46 31 N.	34 42 W.	8	—, 8.	8	29.55	SSW	S, 9	W	SSW, 10	S.-W.
West Madaket, Am. S. S.	Liverpool	Mobile	39 00 N.	29 40 W.	10	9 p., 10	11	29.71	SW	SW, —	WNW	WNW, 9	SW.-WNW.
Sacandago, Am. S. S.	New York	Antwerp	47 10 N.	34 38 W.	11	5 p., 11	12	29.62	SSW	SSW, 10	W	W, 11	SSW.-W.
Iowa, Fr. S. S.	Havre	Port de France	44 20 N.	22 11 W.	11	5 p., 11	11	29.62	NNW	NNW, 10	NW	NNW, 10	Steady.
St. Andrew, Br. S. S.	Galveston	Bremen	42 40 N.	41 55 W.	12	3 a., 13	13	29.16	N	—	WNW	N, 10	E.-N.-WNW.
Nieuw Amsterdam, Du. S. S.	Rotterdam	Halifax	47 46 N.	24 28 W.	13	6 p., 13	14	28.76	ESE	SSW, 6	WNW	NW, 10	ESE.-S.-NW.
Stockholm, Swed. S. S.	Gothenburg	New York	55 30 N.	29 42 W.	14	8 a., 15	15	29.27	SSE	SSW, 9	WSW	SW, 10	SSE.-WSW.
Maine, Br. S. S.	Antwerp	do.	43 35 N.	49 01 W.	16	11 p., 16	17	29.11	NNW	NNW, —	NNW	NW, 10	S.-NW.
Stockholm, Swed. S. S.	Gothenburg	do.	49 12 N.	43 00 W.	17	4 p., 17	18	29.30	ENE	NNE, 10	NW	N, 11	ENE.-N.-NW.
Gulfring, Am. S. S.	Savannah	Port Arthur	27 45 N.	89 00 W.	18	10 p., 18	19	29.60	N	—, 8	N	W, 9	W.-WNW.
E. J. Sadler, Am. S. S.	Balboa	New York	22 00 N.	84 00 W.	19	2 a., 19	19	29.88	SW	SW, 7	SW	W, 9	Steady.
Sinsinawa, Am. S. S.	Gibraltar	do.	38 35 N.	72 20 W.	19	7 a., 19	20	29.84	Var	NE, 5	NE	NE, 10	Do.
Minnekahda, Am. S. S.	New York	London	39 56 N.	70 38 W.	19	Mdt. 20	20	29.94	NE	ENE, 8	ENE	ENE, 10	Do.
München, Ger. S. S.	Queens town	New York	48 19 N.	34 18 W.	20	8 p., 20	21	29.48	NW	NW, 6	WNW	NW, 11	SW.-NW.
Mascanamo, Ger. S. S.	Houston	Land's End	43 35 N.	32 00 W.	20	6 a., 21	22	29.57	W	NW, 11	W	NW, 11	SW.-NW.
West Hardaway, Am. S. S.	London	Pensacola	45 26 N.	18 26 W.	21	3 p., 21	22	29.02	SW	NW, —	W	NNW, 12	SW.-NW.
See City, Am. S. S.	Antwerp	New York	49 12 N.	14 35 W.	21	Mdt. 21	27	28.86	S	NW, 9	NW	NNW, 12	SSW.-NW.
Emanuel Nobel, Belg. S. S.	London	New Orleans	43 00 N.	22 30 W.	23	8 p., 23	26	29.34	W	SW, 8	SW	W, 10	SW.-WSW.
Bloomfield, Br. S. S.	Rouen	Baton Rouge	43 07 N.	22 48 W.	25	6 p., 25	27	29.71	SW	SW, —	NW	—, 11	SW.-NW.
Am. Banker, Am. S. S.	New York	London	40 46 N.	64 10 W.	26	4 p., 26	27	29.24	SE	SE, 10	W	SE, 10	S.-SW.-W.
Mascanamo, Ger. S. S.	Houston	Land's End	48 44 N.	11 55 W.	26	9 a., 26	27	28.48	S	SW, 10	W	W, 12	S.-SW.-W.
Japanese Prince, Br. S. S.	Suez	New York	40 03 N.	29 31 W.	23	11 p., 26	Mar. 1.	28.87	SW	SW, 12	WNW	SW, 12	SW.-W.-NW.
Westland, Am. S. S.	Manchester	Mobile	45 10 N.	15 38 W.	27	4 p., 27	Feb. 28.	28.82	SW	—, 12	N	—, 12	W.-NW.
Innoko, Am. S. S.	Rotterdam	New York	49 53 N.	5 00 W.	27	Noon, 28	Mar. 1.	28.94	SSW	SW, 9	WNW	SW, 10	SW.-WSW.